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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/546,280	04/10/2000	Bogdan Z. Kasztenny	6202-0118	2510

21967 7590 05/30/2003

HUNTON & WILLIAMS
INTELLECTUAL PROPERTY DEPARTMENT
1900 K STREET, N.W.
SUITE 1200
WASHINGTON, DC 20006-1109

EXAMINER

WACHSMAN, HAL D

ART UNIT	PAPER NUMBER
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2857

DATE MAILED: 05/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/546,280

Applicant(s)

KASZTENNY ET AL.

Examiner

Hal D Wachsman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-17 is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☒ Claim(s) 5-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 April 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2, 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.



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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
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EXAMINER

ART UNIT	PAPER
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6

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

Hal D Wachsman
Primary Examiner
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1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the method for providing protective control to a tapped line in a power system (i.e. such as in a flow chart) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The Abstract is objected to because it contains purported merits (i.e. "ensure relay stability", "ensure phase-selective operation"). Appropriate correction is required.

3. The PCT International Search Report cited on a IDS 1449 form was not considered because the search report in itself is not prior art.

4. Claims 7-17 are objected to under 37 C.F.R. 1.75(a) for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Claims 7, lines 5-6, cite "the one or more first differential currents" which lacks clear antecedent basis. This same type of problem also occurs in claim 8, lines 2-3 and 4-5. Claim 8, line 5, cites "the restraining current" however the antecedent basis is "first restraining current". Claim 10, lines 11-12, cite "the differential currents" however the antecedent basis is "one or more differential currents". Claim 10, line 12, cites "the restraining currents" however the antecedent basis is "one or more restraining currents". Claim 10, line 14, cites "the zero sequence currents" however the antecedent basis is "one or more zero sequence currents". Claim 10, lines 20-21, cite "the modified

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differential currents" however the antecedent basis is "one or more modified differential currents". This same type of problem also occurs in claim 12, lines 2-3. Claim 10, line 21, cites "the modified restraining currents" however the antecedent basis is "one or more modified restraining currents". Claim 12, line 2, cites "the differential currents" however the antecedent basis is "one or more differential currents". The examiner asks the applicant to better claim the limitations cited above. While the examiner understands the intentions of the applicant he feels confusion could be drawn from the limitations cited above. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1-4 are rejected under 35 U.S.C. 102(a) as being anticipated by the Applicant's Admissions of the prior art.

As per claim 1, the Applicant's Admissions of the prior art (page 2 lines 11-13, 19-21 of the specification) disclose the measuring step. The Applicant's Admissions of the prior art (page 2 lines 22-25, page 3 lines 6-8 of the specification) disclose the first receiving step. The Applicant's Admissions of the prior art (page 1 lines 3-6, page 2 lines 19-25 of the specification) disclose the calculating step. The

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Applicant's Admissions of the prior art (page 1 lines 19-21, page 2 lines 1, 2 of the specification) disclose the second receiving step. The Applicant's Admissions of the prior art (page 1 lines 19-23, page 2 lines 1, 2 of the specification) disclose the determining step.

As per claim 2, the Applicant's Admissions of the prior art (page 2 lines 1, 2, 11-17, 22-25 of the specification) disclose the feature of this claim.

As per claim 3, the Applicant's Admissions of the prior art (page 1 lines 19-21, page 2 lines 1-4, 11-15 of the specification) disclose the feature of this claim.

As per claim 4, the Applicant's Admissions of the prior art (page 1 lines 2, 3, 19-23, page 2 lines 1-10 of the specification) disclose the feature of this claim.

7. Claims 10-17 are allowed subject to the appropriate correction of the 37 C.F.R. 1.75(a) objections noted in paragraph 4 above.

Claims 5-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and subject to the appropriate correction of the 37 C.F.R. 1.75(a) objections noted in paragraph 4 above.

Claims 10-17 are allowable over the prior art because the prior art does not disclose or suggest subtracting zero sequence currents from local and remote current measurements to generate modified current measurements which are used in the calculation of modified differential currents and modified restraining currents with an outputting of a second of two protective control signals based on the modified differential currents and the modified restraining currents.

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Claims 5 and 6 are allowable over the prior art because the prior art does not disclose or suggest at least one distance protection element that determines an apparent impedance from one or more local currents and voltages but does not determine the apparent impedance for faults occurring in a busbar of a tapped transformer connected to a tapped line.

Claims 7-9 are allowable over the prior art because the prior art does not disclose or suggest determining, for an external ground fault, one or more zero sequence currents and subtracting the one or more zero sequence currents from one or more local currents which have been measured by a first protection element, prior to calculating one or more differential currents.

8. The following references are cited as being art of general interest: Guzman-Casillas et al. which disclose restraining techniques, Roberts et al. which disclose a multi-ended fault location system, Novosel et al. which disclose an adaptive distance relaying system and Ward et al. which disclose a protective relaying system that includes local and remote protective relays.


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal D Wachsman whose telephone number is 703-305-9788. The examiner can normally be reached on Monday to Friday 7:00 A.M. to 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 703-308-1677. The fax phone numbers for

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the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


Hal D Wachsman
Primary Examiner
Art Unit 2857

HW
May 23, 2003